SET 2 **MODEL QUESTION PAPER** MA-7/2

SECOND TERM SUMMATIVE ASSESSMENT 2026-27

MATHEMATICS

Standard : 7 **Time : 2 Hrs 15 Minutes**

Instructions

- First 15 minutes is allotted as cool-off time. Read the questions carefully and plan the answers during this time.
- Answer all six questions. Answer all the sub questions.
- Questions 1 and 6 have two parts (A & B). Attempt any one of them (1A or 1B and 6A or 6B).

Question 1 has two parts (1A and 1B). Answer any one.

1.A. To paint a wall, blue paint and white paint are mixed in the ratio 2 : 3. The total paint is 15 litres.

a. How many litres of each colour are there in the mixture?

b. The blue paint is what part of the white paint?

c. If 4 litres of blue paint is used, how much white paint should be mixed to keep the same ratio?

d. What is the ratio of 250 grams to 1 kilogram?

A. 1 : 4 B. 4 : 1 C. 25 : 1 D. 1 : 25

OR

1.B. The length of a rectangle is 18 centimetres and its breadth is 12 centimetres.

a. Write the ratio of length to breadth in the simplest form.

b. The breadth is what part of the length?

c. Another rectangle has length and breadth in the same ratio. Its length is 27 centimetres. What is its breadth?

d. Which of the following pairs are in the ratio 3 : 2?

A. 1.5 metres and 1 metre B. 2 metres and 3 metres

C. 3 metres and 1 metre D. 1 metre and 2 metres

2. See some numbers which are powers of 3: 3, 9, 27, 81

a. Write each number as a power of 3.

b. Write the factors of each number.

c. Find the number of factors of each number. What is the relation between the power and the number of factors?

d. Without listing, say how many factors 3^6 has.

3. Answer the following.

a. Write $5 \times 5 \times 5 \times 5$ as a power and find its value.

b. Write 1000 and 100000 as powers of 10.

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c. Which is larger: 3^4 or 4^3? Explain.

d. Find the value of $2^3 \times 2^2$. Write it as a single power of 2.

e. Which of the following is equal to 81?

A. 3^4 B. 4^3 C. 8^1 D. 2^9

4. a. Some algebraic expressions in column I have equal expressions in column II.

	I		**II**
1	(a + b) − c	i	a − b + c
2	a − (b + c)	ii	a + (b − c)
3	a − (b − c)	iii	a − b − c
		iv	a + b + c

Find the correct match.

A. 1→ii, 2→iii, 3→i B. 1→iv, 2→ii, 3→iii

C. 1→iii, 2→i, 3→iv D. 1→i, 2→iv, 3→ii

b. Write the statement using letters: "5 times a number, increased by 3".

c. Do the following calculation mentally. Write the method used: 999 + 456

d. Write $2 \times (x + y) = 2x + 2y$ in ordinary language.

e. Is 30 − (10 − 4) and 30 − 10 − 4 the same? Write the steps of calculation.

5. Answer the following.

a. The sum of a number and twice the number is 45. Find the number.

b. The length of a rectangle is 3 centimetres more than its breadth. Its perimeter is 26 centimetres. Taking breadth as b, form the equation and find the length and breadth.

c. A father is 30 years older than his son. The sum of their ages is 50. Find their ages.

d. If a = 3 and b = 2, find the value of 2a + 3b.

Question 6 has two parts (6A and 6B). Answer any one.

6.A. A car travels 12.5 kilometres using 1 litre of petrol.

a. How far will it travel with 4.2 litres of petrol?

b. How many litres of petrol are needed to travel 87.5 kilometres?

c. Which of the following is equal to 2.4 × 0.5?

A. 12 B. 1.2 C. 0.12 D. 0.012

d. Find 3.6 ÷ 0.4.

OR

6.B. One side of an equilateral triangle is 3.25 centimetres.

a. What is its perimeter?

b. The length of a rectangular board is 2.5 metres and breadth 1.6 metres. What is its area?

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c. Which of the following is equal to 0.125×8?

A. 10 B. 1 C. 0.1 D. 0.01

d. What is the length of one side of a square with perimeter 22.8 centimetres?

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